



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,220	02/17/2004	Daniel C. Markel	22.1526	2219
35204	7590	10/12/2006	EXAMINER	
SCHLUMBERGER RESERVOIR COMPLETIONS			KLEIN, GABRIEL J	
14910 AIRLINE ROAD			ART UNIT	
ROSHARON, TX 77583			PAPER NUMBER	
			3641	

DATE MAILED: 10/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/708,220

Applicant(s)

MARKEL ET AL.

Examiner

Gabriel J. Klein

Art Unit

3641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 31-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,15,16,32-34,36 and 37 is/are rejected.
- 7) ☒ Claim(s) 2-14,31 and 35 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date June 20, 2006.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 15, 16, 32-34, 36, and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Brooks et al (5123356).

In reference to claim 1, Brooks et al discloses an apparatus comprising:

- one or more housing sections providing a sealed space (figure 4, elements 40 and/or 42);
- a first explosive element in the sealed space (figure 4, element 58);
- a cable (figure 4, element 56);
- a component to provide a signal over the cable to the first explosive element to detonate the first explosive element (figure 4, element 48);
- a second explosive element having a first portion inside the sealed space, and a second portion outside the sealed space exposed to outside pressure (figure 4, element 50), the first explosive element to initiate the second explosive element without presence of a pressure barrier between the first and second explosive elements; and
- a gripping mechanism to grip a surface of the second explosive element capable of maintaining a position of the second explosive element that is

Art Unit: 3641

exposed to the outside pressure in a axial direction of the second explosive element (figure 4, element 52). It should be appreciated that friction forces between elements 50 and 52 act to maintain the axial position of element 50.

In reference to claims 15 and 16, Brooks et al discloses that the apparatus further comprises a well tool (perforating gun) adapted to be activated by detonation of the first and second explosive elements (column 2, lines 32-38; column 7, last paragraph).

In reference to claim 32, Brooks et al discloses that said component comprises an electronic module (figure 4, element 48).

In reference to claim 33, Brooks et al discloses that the electrical module is responsive to input signals provided over an input cable (figure 4, cable to the left of element 48).

In reference to claim 34, Brooks et al discloses that said cable comprises an electrical cable (figure 4, element 56).

In reference to claim 36, Brooks et al discloses an apparatus comprising:

- one or more housing sections providing a sealed space (figure 4, elements 40 and/or 42);
- a detonator in the sealed space (figure 4, element 46);
- a booster explosive contacted to the detonator in the sealed space (figure 4, element 58);
- a detonating cord contacted to the booster explosive, wherein a first portion of the detonating cord is in the sealed space, and a second portion of the

Art Unit: 3641

detonating cord is outside the sealed space for exposure to the outside pressure (figure 4, element 50); and

- a gripping mechanism capable of gripping a surface of the detonating cord and subsequently capable of maintaining a position of the detonating cord in the axial direction of the detonating cord (figure 4, element 52). It should be appreciated that friction forces between elements 50 and 52 act to maintain the axial position of element 50.

In reference to claim 37, Brooks et al discloses that the booster explosive is contacted to the detonator without presence of a barrier between the booster explosive and the detonator (figure 4).

Allowable Subject Matter

Claims 2-14, 31, and 35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments with respect to claims 1 and 36, as well as claims 31-35 and 37, have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gabriel J. Klein whose telephone number is 571-272-8229. The examiner can normally be reached on Monday through Friday 7:15 am to 3:45 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571-272-6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3641

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GJK



MICHAEL J. CARONE
SUPERVISORY PATENT EXAMINER